

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003956**Date Inspected:** 22-Sep-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Lvliqing and Huang Wen Pang	CWI Present:	Yes	No
Inspected CWI report:	Yes No N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes No N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes No N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes No N/A	Approved WPS:	Yes	No N/A
		Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006	Component:	OBG and SAS Tower Fabrication	

Summary of Items Observed:

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 7: OBG - Floor Beam Sub Assembly

The QA Inspector randomly observed ZPMC welder Lui Kaige ID Number 044830, utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-2233-Tc-U2-F, to weld fill pass on flange splice butt joint FB003-101-104. The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

The QA Inspector randomly observed ZPMC welder ID Number 044780 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on plate splice butt joint of floor beam sub-assembly FB011-014-021. QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring weld parameters.

This QA Inspector randomly observed ZPMC welder Hong Shuili ID #044815 utilizing the FCAW Process in the 2G(Hor. Groove) Position with WPS-B-T-2232-Tc-U4b-F and a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic to weld fill pass on flange to web plate tee joint on floor beam FB015-017-045. The QA Inspector randomly observed ZPMC CWI Huang Wen Pang monitoring preheat and

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

weld parameters.

FCAW(2F) fillet welding various stiffeners to web plate/flange of FB003-100-084/085, 093/094 and FB003-079-005 following WPS-B-T-2133-3. ZPMC welder Zhang Qingquan ID #044714 and Wang Hong Lei ID #066687 were noted performing the task this QA observed.

Bay 8: Tower Diaphragm

This QA observed three ZPMC welders ID #037997, ID #066457, ID #068924 and ID #066456 SMAW(2G) PJP welding fill pass on 40mm web plate to tower double diaphragm(bottom) NSD1-SA334B/B weld joints 7 and 8. ZPMC welders were noted utilizing Excalibur E9018M H4R, 4.8mm diameter electrode following WPS-B-T-3312-Tc-P5. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Tack welding of 40mm web plate to bottom of tower double diaphragm WSD1-SA372B/B weld joints 1 and 4 using SMAW(4G) Excalibur E9018M H4R electrode was also noted. ZPMC welders ID #045246 and ID #067081 were observed performing the task. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring preheat and weld parameters.

Heat straightening was also observed on tower diaphragm plate SSD1-SA126 due to mill induced distortion. Natural gas was used with thermal heat input of less than 600 degree C following procedure HSR1(T)-4453.

Heavy Duty Workshop #2:

This QA together with fellow QA George Goulet and Ray Lara performed joint Visual Inspection and 10% Magnetic Particle Inspection on Tower Double Diaphragm 47.6M East and 38M East that appeared to be within the contract requirements.

Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
